

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

Paper No. 20

**UNITED STATES PATENT AND TRADEMARK OFFICE**

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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

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Ex parte ARTHUR VANMOOR

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Appeal No. 2002-0011  
Application No. 09/179,643

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ON BRIEF

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Before ABRAMS, NASE, and BAHR, Administrative Patent Judges.  
NASE, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the examiner's final rejection of claims 1 and 2.<sup>1</sup> Claims 4 to 17 have been withdrawn from consideration under 37 CFR § 1.142(b) as being drawn to a nonelected invention. Claim 3 has been canceled.

We REVERSE.

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<sup>1</sup> Claim 1 was amended subsequent to the final rejection.

BACKGROUND

The appellant's invention relates to a rotary internal combustion engine. A copy of the claims under appeal is set forth in the appendix to the appellant's brief.

The prior art references of record relied upon by the examiner in rejecting the appealed claims are:

Ingraham	1,184,650	May 23, 1916
Harris et al. (Harris)	1,268,794	June 4, 1918
Faulman	1,845,834	Feb. 16, 1932

Claim 1 stands rejected under 35 U.S.C. § 103 as being unpatentable over Faulman in view of Harris.

Claim 2 stands rejected under 35 U.S.C. § 103 as being unpatentable over Faulman in view of Harris and Ingraham .

Rather than reiterate the conflicting viewpoints advanced by the examiner and the appellant regarding the above-noted rejections, we make reference to the final rejection (Paper No. 11, mailed November 15, 2000) and the answer (Paper No. 19, mailed July 10, 2001) for the examiner's complete reasoning in support of the

rejections, and to the brief (Paper No. 17, filed June 6, 2001) for the appellant's arguments thereagainst.

### OPINION

In reaching our decision in this appeal, we have given careful consideration to the appellant's specification and claims, to the applied prior art references, and to the respective positions articulated by the appellant and the examiner. Upon evaluation of all the evidence before us, it is our conclusion that the evidence adduced by the examiner is insufficient to establish a prima facie case of obviousness<sup>2</sup> with respect to the claims under appeal. Accordingly, we will not sustain the examiner's rejection of claims 1 and 2 under 35 U.S.C. § 103. Our reasoning for this determination follows.

A critical step in analyzing the patentability of claims pursuant to 35 U.S.C. § 103 is casting the mind back to the time of invention, to consider the thinking of one of ordinary skill in the art, guided only by the prior art references and the then-accepted wisdom in the field. See In re Dembiczak, 175 F.3d 994, 999, 50 USPQ2d 1614, 1617 (Fed. Cir. 1999). Close adherence to this methodology is especially important in cases where the very ease with which the invention can be understood may prompt one "to

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<sup>2</sup> In rejecting claims under 35 U.S.C. § 103, the examiner bears the initial burden of presenting a prima facie case of obviousness. See In re Rijckaert, 9 F.3d 1531, 1532, 28 USPQ2d 1955, 1956 (Fed. Cir. 1993).

fall victim to the insidious effect of a hindsight syndrome wherein that which only the invention taught is used against its teacher." Id. (quoting W.L. Gore & Assocs., Inc. v. Garlock, Inc., 721 F.2d 1540, 1553, 220 USPQ 303, 313 (Fed. Cir. 1983)).

Most if not all inventions arise from a combination of old elements. See In re Rouffet, 149 F.3d 1350, 1357, 47 USPQ2d 1453, 1457 (Fed. Cir. 1998). Thus, every element of a claimed invention may often be found in the prior art. See id. However, identification in the prior art of each individual part claimed is insufficient to defeat patentability of the whole claimed invention. See id. Rather, to establish obviousness based on a combination of the elements disclosed in the prior art, there must be some motivation, suggestion or teaching of the desirability of making the specific combination that was made by the appellant. See In re Dance, 160 F.3d 1339, 1343, 48 USPQ2d 1635, 1637 (Fed. Cir. 1998); In re Gordon, 733 F.2d 900, 902, 221 USPQ 1125, 1127 (Fed. Cir. 1984).

The motivation, suggestion or teaching may come explicitly from statements in the prior art, the knowledge of one of ordinary skill in the art, or, in some cases the nature of the problem to be solved. See Dembiczak, 175 F.3d at 999, 50 USPQ2d at 1617. In addition, the teaching, motivation or suggestion may be implicit from the prior art as a whole, rather than expressly stated in the references. See WMS Gaming, Inc.

v. International Game Tech., 184 F.3d 1339, 1355, 51 USPQ2d 1385, 1397 (Fed. Cir. 1999). The test for an implicit showing is what the combined teachings, knowledge of one of ordinary skill in the art, and the nature of the problem to be solved as a whole would have suggested to those of ordinary skill in the art. See In re Keller, 642 F.2d 413, 425, 208 USPQ 871, 881 (CCPA 1981) (and cases cited therein). Whether the examiner relies on an express or an implicit showing, the examiner must provide particular findings related thereto. See Dembiczak, 175 F.3d at 999, 50 USPQ2d at 1617. Broad conclusory statements standing alone are not "evidence." Id. When an examiner relies on general knowledge to negate patentability, that knowledge must be articulated and placed on the record. See In re Lee, 277 F.3d 1338, 1342-45, 61 USPQ2d 1430, 1433-35 (Fed. Cir. 2002).

The appellant argues (brief, pp. 19-25) that the rejection of claim 1 before us in this appeal is in error for the following two reasons: (1) the space between the outer wall of Faulman's rotor (i.e., rim 14) and the inner wall surface of Faulman's stator (i.e., flange 10) does not form a combustion chamber as recited in claim 1; and (2) it would not have been obvious at the time the invention was made to a person of ordinary skill in the art to have modified Faulman's motor so that Faulman's reaction resistance members 42 (i.e., turning valves) are rotatably supported about an axis substantially

aligned with the inner wall surface of the stator from the teachings of Faulman and Harris.

We agree with the examiner (answer, p. 5) that the space between Faulman's rim 14 and flange 10 does form part of the combustion chamber. Accordingly, the limitation of claim 1 that "a portion of said peripheral surface of said rotor, a portion of said inner wall surface of said stator, a respective one of said vanes, and said turning valve defining a combustion chamber in said rotor housing" is readable on Faulman's rotary motor as set forth by the examiner.

However, we do not agree with the examiner that it would have been obvious at the time the invention was made to a person of ordinary skill in the art to have modified Faulman's rotary motor so that Faulman's reaction resistance members 42 (i.e., turning valves) are rotatably supported about an axis substantially aligned with the inner wall surface of the stator from the teachings of Faulman and Harris. In that regard, the mere fact that the prior art could be modified in the manner suggested by the Examiner does not make such a modification obvious unless the prior art suggested the modification. See In re Gordon, supra. In this case, Harris provides no motivation, suggestion or teaching to so modify Faulman's rotary motor. Instead, it appears to us

that the examiner relied on impermissible hindsight in reaching his obviousness determination.

Additionally, the examiner stated (final rejection, p. 2; answer, p. 5) that it was well known in the art of rotating piston internal combustion engines of the type shown by Faulman and Harris that the number of blades on the central rotor, the number of turning valves, the number of cut-outs on the turning valves, the relative diameters of the rotor and the turning valves, inter alia, may be varied depending on the desired number of combustions per revolution and therefore the desired power output. However, as set forth in In re Lee, supra, when an examiner relies on general knowledge to negate patentability, that knowledge must be articulated and placed on the record. In this case, the prior art of record only specifically establishes that the number of turning valves may be varied (Faulman, page 2, lines 19-25). Thus, with regard to the claimed subject matter the examiner has not provided any evidence that the relative diameters of Faulman's turning valves (i.e., reaction resistance members 42) may be varied so as to permit their rotation about an axis substantially aligned with the inner wall surface of Faulman's stator. Furthermore, even if the prior art suggested modifying Faulman's rotary motor so that each reaction resistance member 42 (i.e., turning valve) had only one cut-out, such would not require the axis of rotation of Faulman's reaction resistance members to be moved since the axis of rotation of

Faulman's reaction resistance members can be maintained as depicted in Figure 1 provided the gear ratio between gears 29 and 30 is appropriately altered from its current 1:1 ratio to a 1:3 ratio.

For the reasons set forth above, the decision of the examiner to reject claim 1 under 35 U.S.C. § 103 is reversed.

We have also reviewed the reference to Ingraham additionally applied in the rejection of dependent claim 2 but find nothing therein which makes up for the deficiencies of Faulman and Harris discussed above. Accordingly, the decision of the examiner to reject claim 2 under 35 U.S.C. § 103 is reversed.



CONCLUSION

To summarize, the decision of the examiner to reject claims 1 and 2 under 35 U.S.C. § 103 is reversed.

REVERSED

NEAL E. ABRAMS  
Administrative Patent Judge

JEFFREY V. NASE  
Administrative Patent Judge

JENNIFER D. BAHR  
Administrative Patent Judge

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